



SEQUENCE LISTING

NIEHRS, CHRISTOF
GLINKA, ANDREI

<120> AN INHIBITOR PROTEIN OF THE WNT SIGNAL PATH

<130> RABG/40168

<140> 09/530,219

<141> 2000-07-27

<150> PCT/DE98/03155

<151> 1998-10-27

<150> DE 197 47 418.7

<151> 1997-10-27

<160> 9

<170> PatentIn Ver. 2.1

<210> 1

<211> 1297

<212> DNA

<213> Xenopus laevis

<400> 1

gacagtcgga gccggcgctg cagcatcaa gggacttata ttggaggact tgtgaattct 60
catcctgcca ttgtggttac tgagtctgg tggacagagg aatgggcagc aacatgttcc 120
cggtgcctct tattgtcttt tggggttta tcttggatgg ggcacttggc tttgtcatga 180
tgaccaactc caactccatc aagaatgtgc cggcggcacc agcaggtcag cccattggct 240
actaccctgt gagcgtcaigt ccggactccc tatatgatat tgccaacaag taccaacctc 300
tggatgccta cccgctctac agttgcacgg aagatgatga ctgtgccctt gatgaattct 360
gtcacagttc cagaaaacggc aactctctgg tttgcttggc atgcccggaaa cgcagaaagc 420
gttgcctgag ggacgcccatt tgctgcacag gcaactactg tagcaacgga atttgtgtcc 480
ctgtggagca agatcaagag cgcttccaaac accaggata cctggaagaa accattctgg 540
aaaactataa taatgctgat catgcaacaa tggatactca ttccaaattha accacgtccc 600
catctggaat gcagcccttt aaaggccgtg atggtgatgt ttgcctccga tcaactgact 660
gtgcgccagg tctatgtgt gcccgtcatt tctggtaaaa gatctgcaag cccgtccttg 720
atgaaggcca agtgtgcacc aagcacagga gaaaggctc tcacgggcta gagattttcc 780
agcgttgcata ctgcgggtgcc ggactctcggt gccggttaca gaaaggagaa ttacaactg 840
tccctaaaac atcgagactt cacacttgcc aaagacacta agcgaggcct acagagcctg 900
aaggacattc tctaaattaa gctaattaag actttggtac ctgcattgttta ttttctcagt 960
ttacatgaag tgctctggtc ttccctgaac ccggaaagctg cgcaacttgt ttctttttt 1020
gaggaacttc ctaattaatg ctaattacag taaattactg tggtaaat actacgcaag 1080
gagacctgtaa aaaactgtaa atacccgtgt atagaaagtg tacatgatct tctctattgt 1140
aacctgccac ttgtacatt ccgacgcgct cttccctttt tatatatata tatatataaa 1200
tatatattat attatgtaga gtttacgtct agtatgtctg tatttttaat tgaaataaaaa 1260
catttctaaa cttaaaaaca aaaaaaaaaa aaaaaaaaaa 1297

<210> 2

<211> 881

<212> DNA

C

<213> Mus sp.

<400> 2

tgcaggcatg aacaaggact gggttcgccg gcagttagaa gggcaaaagc ctggggcagg 60
 cctaccctt cagcagtat aagaatgtg aagtttggaa atactgccac agtccccacc 120
 aagggttcatc agcctgcatg ctctgttagga ggaaaaagaa acgatgccac agagatggaa 180
 tgtgttgcgc tggtaaccgc tgcaataatg gaatctgcat cccagtcact gagagcatcc 240
 tcacccca aatcccagct ctggatggca cccggcata gatcgcaac catggtcact 300
 attccaacca tgacctggaa tggcagaatc taggaaggcc acactccaag atgcctcata 360
 taaaaggaca tgaaggagac ccatgcctac ggtcatcaga ctgcattgtat gggttttgtt 420
 gtgctcgcca cttctggacc aaaatctgca aaccagtgtt ccatcagggg gaagtctgt 480
 ccaaacaacg caagaagggt tcgcacgggc tggagatcc ccagaggtgt gactgtgaa 540
 agggcctgtc ctgcaaaatg tggaaagatg ccacctactc ttccaaagcc agactccatg 600
 tatgccagaa gatctgataa acacttggaa agtcatcaact agcagactgt gaatttgtgt 660
 atttaatgca ttatggcatg atggaaacct ggatttggaaat gcggaagaat gaggatgtg 720
 gtaagaatgt ggagcagaag agggcaggac tgaatcaagt agagtcgaca acaaccaaag 780
 tactaccgt gcttccgtt tgcctcat ctatgtaaat aatgtacaca ttttgtaaaa 840
 tgctattattt aaaagaaagc acaccatggaa aattacaaaa a 881

<210> 3

<211> 1226

<212> DNA

<213> Mus sp.

<400> 3

gaccacacgca tccgtgcctg tttgcgtct tcggagatga tggttgtgtg tgcaccggca 60
 gctgtcccggt tcttggccgt gtttacaatg atggctctt gcagcctccc tctgttagga 120
 gccagtgcctt ccttgaactc agttctcatc aattccaaacg cgatcaagaa cctggccccc 180
 cccgctgggtg gtgctggggg gcagccgggc tctgctgtca gtgtggcggcc gggagttctc 240
 tatgagggcg ggaacaagta ccagacttta gacaactacc agccctaccc ttgcgtgaa 300
 gatgaggagt gcccgtctga cgagtactgc tccagccca gcccggggc agccggcgtc 360
 ggaggtgtac agatctgtct ggcttgccga aagcgcagga agcgtctgc gacgcacgct 420
 atgtgtctgcc ccgggaacta ctgcaaaaat ggaatatgca tggccctctga ccacagccat 480
 tttcctcgag gggaaatgtt ggaagcatc attggaaacc ttggtaatgca ccacaacgca 540
 gcccggggg atggatatcc cagaagaacc acactgactt caaaaatata tcacaccaaa 600
 ggacaagaag gctccgtctg cctccgatca tcagactgtg cccgagggt gtgttgca 660
 agacacttct ggtccaagat ctgtaaacct gtccttaaag aaggtcagggt gtgcaccaag 720
 cacaaacgga aaggctccca cgggctggag atattccagc gctgttactg cgggaaaggc 780
 ctggcttgca ggatacagaa agatcaccat caagccagca attcttctat gctccacacc 840
 tgccagagac actaaaccga cagtctaaat atgatggact ctttttatct aatatatgt 900
 acgaaaatcc tttatgattt gtcagctcaa tcccaaggat gtaggaatct tcagtgtgt 960
 attaaggcatt ccgacaatac tttccaaaatg ctctggagtg taaggactt gtttcttgat 1020
 ggaactcccc tggatttgca gtaaattact gtgtttaaa tcctcaggtt ggcacttacc 1080
 tggtaatgca gcaaaaactt taattatccc tctagagggtt tggtaatcc ctttcttct 1140
 cttgcattgtt aattttttt gtacacgggtt gattgtctt actcataaat attctatatt 1200
 ggagtagaaaa aaaaaaaaaaaa aaaaaaa 1226

<210> 4

<211> 768

<212> DNA

<213> Homo sapiens

<400> 4

atacgactca ctataaggaa tttggccctc gaggccaaga attcggcacg agggttggga 60
 ggtattgcca cagtccccac caaggatcat cgccctgcat ggtgtgtcg agaaaaaaaaga 120
 agcgctgcca ccgagatggc atgtgctgcc ccagtaaccg ctgcataaat ggcatctgt 180
 tcccagttac tgaaagcatc ttaaccctc acatccggc tctggatggt actcggcaca 240
 gagatcgaaa ccacggtcat tactcaaacc atgacttggg atggcagaat ctagaaagac 300
 cacacactaa gatgtcacat ataaaaggc atgaaggaga cccctgccta cgatcatcag 360
 actgcattga agggtttgc tgtgctgac atttctggac caaaatctgc aaaccagtgc 420
 tccatcaggg ggaagtctgt accaaaacaac gcaagaaggg ttctcatggg ctggaaattt 480
 tccagcgttg cgactgtgcg aaggccctgt cttgcaaagt atggaaagat gccacctact 540
 cctccaaagc cagactccat gtgtgtcaga aaatttgcattc accattgagg aacatcatca 600
 attgcagact gtgaagtgtgt gtatttaatg cattatagca tggggaaaaa taagttcag 660
 atgcagaaga atggctaaaaa taagaaacgt gataagaata tagatgatca caaaaaaaaa 720
 aaaaaaaaaaag atgcggccgc aagcttattc ccttagtga gggtaat 768

<210> 5
 <211> 828
 <212> DNA
 <213> Homo sapiens

<400> 5
 tggccccgca cgccaaaaat tcggcacgag ggtctggcac tcagaggatg ctctgacctt 60
 gaaagggtcc tatctggaga cgagggagta caacgtgctg aatgtgtgcg gttcaaggag 120
 cattggtaa ccctgcattt gggagcagtg ggcactaacc gttttggag aggtggacac 180
 ataaggactg tgatcagcgc ccgggtccaa gagggcgggt acctggacac ctgggtgcct 240
 caccctctcc ccgaaccctt cccacagccg taccctgtgcg cagaggacga ggagtgcggc 300
 actgatgagt actgcgttag tcccaccccg cggaggggac cggccggccgt gcaaattctgt 360
 ctcgcctgca ggaagcgccg aaaacgctgc atgcgtcactg ctatgtgctg ccccggaat 420
 tactgaaaaa atgaaatatg tgtgtcttct gatcaaaaatc atttccgagg agaaatttag 480
 gaaaccatca ctgaaagctt tggtaatgat catagcacct tggatgggta ttccagaaga 540
 accaccctgtt cttcaaaaat gtatcacacc aaaggacaag aaggttctgt ttgtctccgg 600
 tcatcagact gtgcctcagg attgtgttgc gctagacact tctggtccaa gatctgtaaa 660
 cctgtcctga aagaaggcata agtgtgtacc aagcatagga gaaaaggcgc tcatggacta 720
 gaaatattcc agcgttgta ctgtggagaa ggtctgtctt gccggataca gaaagatcac 780
 catcaagcca gtaattttc taggctcac acttgtcaga gacactaa 828

<210> 6
 <211> 432
 <212> DNA
 <213> Homo sapiens

<400> 6
 gcgggtggcgcc cgcgtctaga atagtggatc ccccggtcg caggaattcg gcacgagcgg 60
 ctgcggcgcc agagcgaggaa tgcaagcgct tggggccacc ctgctgtgcc tgctgctggc 120
 ggcggcggtc cccacggccc ccgcgcggcc tccgacggcg acctcggtc cagtcagcc 180
 cggcccggtc ctcaagctacc cgcaggagga ggcacccctc aatgagatgt tccgcgaggt 240
 tgaggaactg atggaggaca cgcagcacaa attgcgcagc gcgggtggaaag agatggaggc 300
 agaagaagct gctgctaaag catcatcaga agtgaacctg gcaaacttac ctcccgacta 360
 tcacaatgag accaacacag acacgaaggat tggaaataat accatccatg tgcaccgaga 420
 aattcacaag tt 432

<210> 7
 <211> 1383

<212> DNA
<213> Gallus sp.

<400> 7

| | | | | | | |
|-------------|-------------|-------------|------------|--------------|-------------|------|
| cggcgagcgg | cagcggcggc | tgaggagcgc | cggggatgcg | gcggggagag | ggaccggcgc | 60 |
| cgcggcggcg | atggctgctg | ctgttggccg | tgctggcgc | tctgtgctgc | gccgcggccg | 120 |
| ggagcggcgg | gcggcggcga | gcggccagcc | tgggcgagat | gctgcggag | gtggaggcgc | 180 |
| tgatggagga | cacgcagcac | aagtgcgca | acgcccgtca | ggagatggaa | gctgaagaag | 240 |
| aaggggcaaa | aaaactgtca | gaagtaaact | ttgaaaactt | acctcccacc | taccataatg | 300 |
| agtccaacac | agaaaaccaga | atttgtaata | aaactgttca | gactcatcaa | gaaattgtata | 360 |
| agttacaga | taacagaact | ggatcaacaa | tttttccga | gacaattatt | acatctataa | 420 |
| agggtgggaga | aaacaaaaga | aatcatgagt | gtatcattga | tgaagactgt | gaaacaggaa | 480 |
| agtattgcca | gttctccacc | tttgaataca | agtgtcagcc | ctgtaaaacc | cagcatacac | 540 |
| actgctcacg | agatgttga | tgctgcggag | accagcttg | tgtttgggt | gagtgcagga | 600 |
| aagccacttc | aagaggagaa | aatggtacca | tttgtgagaa | ccaacatgac | tgcacccag | 660 |
| gaacgtgctg | tgctttcag | aaagaactgc | tgtttctgt | gtgcactccg | ttacccgaag | 720 |
| aaggtgaacc | ttgccatgat | ccttcaaaca | gacttctcaa | cctgatcacc | tggaaactgg | 780 |
| aacctgatgg | agtactagag | cgctgcccatt | gtgcaagtgg | cttgcattgc | caacctcaga | 840 |
| gcagccacag | tactacatct | gtgtgtgaac | tgtcctccaa | tgaaaccagg | aaaaacgaaa | 900 |
| aagaagatcc | tttgaacatg | gatgagatgc | catttatcag | ttaataatccc | agagatattc | 960 |
| tttctgatta | cgaagaaagc | agcgtcattc | aggaagtgcg | taaagaatata | gaaagcctgg | 1020 |
| aggaccaagc | aggtgtgaag | tctgagcatg | acccggctca | tgacctattt | ctgggagatg | 1080 |
| aaatatgaag | ttcaaacacc | agtttagtta | gtcctagaaa | ttgttgcata | gtgtcttgct | 1140 |
| tacatacacc | cttaacagat | actgctggat | agaagtgcac | taaacatctt | cattgagcat | 1200 |
| ccgtttcgt | gcaccaaacc | tgcatgttca | aattcatgtt | gaattcactc | aatctttgga | 1260 |
| ccaaactttc | catcaaagac | aaatgagaaa | ggcatcagt | ttccctttgg | attaaatcctt | 1320 |
| tccttgcac | agcagaaata | aacgtatcag | tactcgact | cattaaaaaaaa | acacacggag | 1380 |
| | | | | | cat | 1383 |

<210> 8
<211> 44
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Consensus wnt
Protein

<220>
<221> MOD_RES
<222> (2)..(8)
<223> Any Amino Acid

<220>
<221> VARIANT
<222> (9)
<223> Ay amino acid

<220>
<221> MOD_RES
<222> (10)..(16)
<223> Any Amino Acid

<220>

<221> MOD_RES
<222> (18)..(19)
<223> Any Amino Acid

<220>
<221> MOD_RES
<222> (21)..(26)
<223> Any Amino Acid

<220>
<221> MOD_RES
<222> (28)..(32)
<223> Any Amino Acid

<220>
<221> MOD_RES
<222> (35)..(38)
<223> Any Amino Acid

<220>
<221> MOD_RES
<222> (40)..(41)
<223> Any Amino Acid

<220>
<221> MOD_RES
<222> (43)
<223> Any Amino Acid

<400> 8
Cys Xaa
1 5 10 15

Cys Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa
20 25 30

Cys Cys Xaa Xaa Xaa Xaa Cys Xaa Xaa Gly Xaa Cys
35 40

<210> 9
<211> 65
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Consensus wnt
Protein

<220>
<221> MOD_RES
<222> (2)..(3)
<223> Any Amino Acid

<220>

<221> MOD_RES
<222> (5)..(6)
<223> Any Amino Acid

<220>
<221> MOD_RES
<222> (8)..(11)
<223> Any Amino Acid

<220>
<221> MOD_RES
<222> (14)..(15)
<223> Any Amino Acid

<220>
<221> MOD_RES
<222> (17)
<223> Any Amino Acid

<220>
<221> MOD_RES
<222> (21)..(24)
<223> Any Amino Acid

<220>
<221> VARIANT
<222> (25)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (26)..(29)
<223> Any Amino Acid

<220>
<221> MOD_RES
<222> (31)
<223> Any Amino Acid

<220>
<221> MOD_RES
<222> (33)..(36)
<223> Any Amino Acid

<220>
<221> MOD_RES
<222> (38)..(39)
<223> Any Amino Acid

<220>
<221> MOD_RES
<222> (41)..(47)
<223> Any Amino Acid

<220>



a1

21

<220> VARIANT

<221> (48)

<223> Any amino acid

<220>

<221> MOD_RES

<222> (49)..(55)

<223> Any Amino Acid

<220>

<221> MOD_RES

<222> (58)

<223> Any Amino Acid

<220>

<221> MOD_RES

<222> (60)..(61)

<223> Any Amino Acid

<220>

<221> MOD_RES

<222> (64)

<223> Any Amino Acid

<400> 9

Gly Xaa Xaa Gly Xaa Xaa Cys Xaa Xaa Xaa Asp Cys Xaa Xaa Gly
1 5 10 15Xaa Cys Cys Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Pro
20 25 30Xaa Xaa Xaa Xaa Gly Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa
35 40 45Xaa Xaa Xaa Xaa Xaa Xaa Arg Cys Xaa Cys Xaa Xaa Gly Leu Xaa
50 55 60Cys
65